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College of Science and Mathematics
Opening Minds to Science
2009 Annual Report

Message from the Dean

On behalf of Dean Michele Wheatly, it is my pleasure to bring you the College of Science and Mathematics 2009 annual report. This report documents the third full year of our five-year strategic plan, *Opening Minds to Science*, and the further progress we have made in our corresponding efforts to enhance the position the College of Science and Mathematics at Wright State University as an innovative leader pushing the frontiers of science, technology, engineering, and mathematics (STEM).

College of Science and Mathematics 2009 report on *Opening Minds to Science* includes the following highlights. We welcomed five talented new junior faculty members in Fall 2009, and recruited an outstanding senior scientist who will join our faculty as Endowed Chair in Experimental Sensor Physics effective Spring 2010. Our faculty have continued their high level of research activity and accomplishment, as measured by research funding, publications, presentations and invited talks, editorial board membership, organization of conferences and symposia, and special recognitions. The Women in Science Giving Circle awarded its second grants and scholarships to support women faculty and students in STEM disciplines. Research funding in our comprehensive and matrix departments each reached new highs and a collective total of 15.5 million dollars. Faculty members made over 300 presentations, including numerous invited lectures. In honor of the 200th anniversary of Charles Darwin's birth, the Department of Biological Sciences hosted an Evolution Lecture Series, including a fabulous impersonation of Darwin by Robert Dennison. Our relatively young Environmental Sciences Ph.D. program graduated its seventh and eighth students. Fall 2009 undergraduate CoSM enrollments were up 6.8%, on the heels of an 8.2% increase in Fall 2008 compared to Fall 2007. One BMS doctoral student received an American Physiological Society travel award to attend IUPS 2009 in Kyoto, Japan, and another was awarded a Predoctoral Fellowship from the American Heart Association. Several students won awards for presentations or posters at local or regional meetings.

On both a sad and happy note, Michele Wheatly, Dean of the College of Science and Mathematics since 2002, stepped down on the last day of 2009 to accept the position of Provost at West Virginia University. While Dean Wheatly has done a great deal to raise our college to new heights and she will be sorely missed as dean, colleague and friend, her wonderful opportunity reflects well on the Wright State University and the College of Science and Mathematics!

We hope you will enjoy reading about our activities and accomplishments in 2009!

Sincerely,

A handwritten signature in dark ink, appearing to read "Dan Voss". The signature is fluid and cursive, with the first name "Dan" and last name "Voss" clearly distinguishable.

Dan Voss, Interim Dean

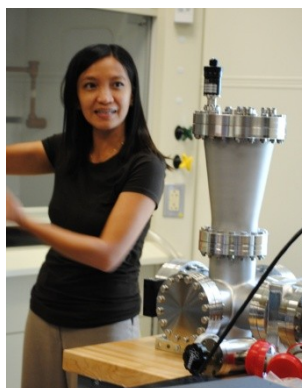
College of Science & Mathematics

CoSM intends to achieve its mission through seven core strategies:

- A. Enhance core capabilities for a research platform
- B. Expand interdisciplinary capabilities to solve complex world problems
- C. Strengthen graduate education
- D. Position the college as a regional research and education partner of choice
- E. Exercise national leadership in the science of teaching and learning
- F. Continue to improve undergraduate student success
- G. Develop and expand relationships with our alumni

A. Enhance Core Capabilities for a Research Platform

In positioning Wright State University (WSU) as a nationally competitive research institution, we are strengthening our core capabilities to develop a research platform that allows us to showcase our facilities, equipment, technical support, and human intellectual capital.



HIGHLIGHTS:

In 2009, the college was successful in hiring several outstanding new faculty. They strengthen existing graduate programs, and in some cases, their cross-disciplinary approach will complement several programs.

Amy Burgin – Earth and Environmental Sciences (EES)

Amy Burgin earned a Ph.D. from Michigan State University in 2007. She was a postdoctoral scholar at the Cary Institute of Ecosystem Studies prior to joining Wright State University as an assistant professor in 2009.

Dr. Burgin's research integrates microbial ecology, biogeochemistry and ecosystem ecology to understand of how microbes interact with their environment and affect biogeochemical cycles.

Heather Hostetler – Biochemistry and Molecular Biology (BMB)

Heather Hostetler received her PhD from Purdue University in 2003. She did her post-doctoral work at Texas A&M in the laboratories of F. Schroeder and A.B. Kier before joining WSU as an assistant professor in 2009. Her current NIH funding focuses on the peroxisome proliferator-activated receptor alpha (PPARα) and how dietary nutrients (lipids and sugars) can lead to physiological problems observed in diabetes.

Gale Kleven – Psychology (PSY)

Gale Kleven received her Ph.D. in Psychology from the University of Iowa in 2005. In her postdoctoral work at Wake Forest, Gale developed innovative imaging techniques of brain metabolites in juvenile and adult mice. She joined the Behavioral Neuroscience faculty as an Assistant Professor in Psychology. The National Institute of Nursing Research supports her current work on bio-behavioral pathways during fetal development that can be the basis of disease in adults.

Qun Li – Mathematics and Statistics (M&S)

Qun Li received his Ph.D. in 2008 from McGill University and joined the department as an assistant professor in 2009 after a post-doc at The Ohio State University. Her research areas of interest include geometric analysis and partial differential equations.

Sachiko Tosa – Physics (PHY)

Sachiko Tosa received her Ed.D. in 2009 from University Mass in Mathematics and Science Education. She received her Ph.D and M.A. degrees from the University of Rochester in Physics. She studies the use of data-logging on science teachers' attitudes towards inquiry-based teaching and has compared inquiry-based teaching practices of American and Japanese middle-school science teachers.

OTHER HIGHLIGHTS INCLUDE:

Ohio Department of Development through University of Dayton Research Institute (UDRI), 2008 – 2013. *Ohio Research Scholar in Terahertz Sensing for the Layered Sensing Cluster.* The CoSM had success under the Ohio Research Scholar Program and will have the opportunity to hire established investigators in 2010. These new scholars in terahertz sensing and imaging will enhance existing programs in the Department of Physics and departments in the College of Engineering and Computer Science.

Daniel Organisciak (BMB) was named a 2009 Association for Research in Vision and Ophthalmology (ARVO) Gold Fellow.

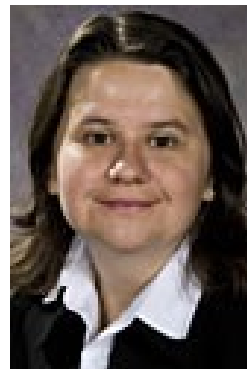
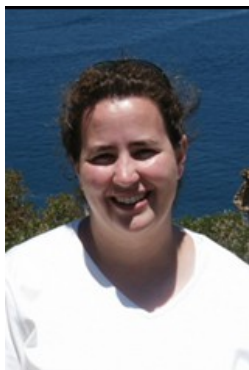
A shared instrumentation facility to support faculty primarily associated with the Environmental Sciences PhD program formed the **Environmental Analytical Facility (EAF)**

Women in Science Giving Circle awarded its second round of grants and scholarships in 2009.

2009 WISGC Grants (\$5,000 each)

Lynn Hartzler – Assistant Professor
Department of Biological Sciences
Respiratory Control/Comparative Physiology

Ioana Pavel – Assistant Professor
Department of Chemistry
Bio-Nanotechnology and Nanotoxicology



2009 WISGC Scholarships (\$1,500 each)

Carla Benton
Physics

Krista Renee Lewis
Psychology

Lorraine Raquel Ramirez
Biological Sciences/Pre-Med

Full-Time Faculty (FTE)		Opening Minds to Science				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Professors	45.6	46.7	51.4	52.9		
Associate Professors	49.5	50.0	49.4	48.8		
Assistant Professors	23.0	20.5	20	23.7		
Instructors and Lecturers	17.0	23.0	26	22.5		
Total Faculty	135.0	140.0	146.8	147.9		

Research Funding (Comprehensive Departments)		Opening Minds to Science				
	2006	2007	2008	2009	2010	2011
Grants funded	136	139	104	98		
Dollars awarded (millions)	8.6	9.2	7.7	10.4		

Research Funding (Matrix Departments)		Opening Minds to Science				
	2006	2007	2008	2009	2010	2011
Grants funded	27	27	25	25		
Dollars awarded (millions)	3.7	4.2	4.2	5.1		

Scholarly Activities (Total)		Opening Minds to Science				
	2006	2007	2008	2009	2010	2011
Publications (Refereed Articles and Book Chapters)	212	196	175	198		
Presentations and invited talks	321	324	339	356		
Editorial Board Membership	26	28	50	61		

B. Expand Interdisciplinary Capabilities to Solve Complex World Problems

As our world becomes increasingly complex, its problems will require solutions that involve interdisciplinary teams with innovative approaches. The three PhD programs in CoSM each have an interdisciplinary base that draws on faculty in many departments.

HIGHLIGHTS:

Faculty members made over 300 presentations, including invited lectures.

Tim Cope and **Robert Fyffe** (NCBP) organized “*Mechanisms of Plasticity in Neuronal Connections: a Symposium Honoring the Contributions of Dr Lorne Mendell*” Dayton, Ohio, June 17-19, 2009.

Robert Putnam (NCBP) was the invited keynote speaker at the Regulation of Respiration Retreat at Kemp Station at the University of Wisconsin (July, 2009). He also gave an invited talk at the International Society of Nephrology Forefront Symposium on Renal and Extra-renal Control of Acid-Base Homeostasis in Health and Disease in Florence, Italy (September, 2009).

Francisco Alvarez (NCBP) presented “Early Development of Motoneurons and Renshaw Cell Connections” at the Seminaire de Neurosciences des Saint Peres, Universite Paris Descartes, Paris (June, 2009).

Tim Cope (NCBP) received a Visiting Lecturer Award and presented “Stretch Reflex Modified by Nerve Injury” at the Alberta Heritage Foundation for Medical Research, University of Alberta, Canada (November 2009).

Larry Prochaska (BMB) was Co-Chair of the mini-symposium “Electron Transfer and Energy Coupling Mechanisms in Organelles” at the Biophysical Society Annual Meeting (March, 2009).

Paul Seybold (CHM) was named External Fellow of the *Center for the Study of Biological Complexity* at Virginia Commonwealth University, Richmond, VA.

Michele Wheatly and **David Goldstein (BIO)**, with others, hosted Dr. Mary Ann Mason, Professor and Co-Director, Center, Economics & Family Security at the University of California, Berkeley, School of Law. Dr. Mason spoke on the challenges of work-life balance, particularly related to child rearing, for STEM academic faculty.

DA Rogers, **Tom Rooney** (BIO), TJ Hawbaker, VC Radeloff, and DM Waller. Paying the extinction debt in southern Wisconsin forest understories. *Conservation Biology*: 23: 1497-1506. *This study was picked up by the media and was highlighted on the websites of U.S. News and World Report, Science Daily, and many others.*

C. Strengthen Graduate Education

This Core Strategy is to strengthen graduate education in CoSM through growth in doctoral programs and recruitment of top faculty, and outstanding students. The college has three interdisciplinary PhD programs in addition to eleven MS degree programs. The relatively young ES PhD program has just begun graduating new young scientists.

HIGHLIGHTS:

Heidi L. Jordan (BMS student in C. Wyatt’s laboratory) received an American Physiological Society travel award for to attend IUPS 2009 in Kyoto, Japan.

Lawrence Mastera (EES student) received First Place and **Dominick Wytovich** (EES student) Second Place for their presentations at the annual meeting of the American Association of Petroleum Geologists- Eastern Section.

Teresa Cvetkov (BMS Ph.D. Student) was awarded a Predoctoral Fellowship “Changes in Conformation in Cytochrome Oxidase during Enzymatic Turnover” from the American Heart Association.

Chemistry students **Erik Dihrkop** and **Andrea Elsen** each won a Best Graduate Poster (ACS) and **Kelsey Miles** won the Best Undergraduate Poster at Dayton ACS/SAS Patterson Awards' Meeting, March 2009.

Associate Professor Mill Miller (BIO) organized the second Department of Biological Sciences Golf Scramble fundraiser in support of student research, with Matthew Diggs as honorary Chair. The event raised \$5,000 to be distributed to students in the Department of Biological Sciences.



In the photo, (L-R) Matthew Diggs, Honorary Chair and former Chair of the WSU Board of Trustees, Brock Prater, WSU Department of Physics Graduate Student, Jimmy Henderson, WSU Alum and former PGA golfer, and Robert Sweeney, WSU Executive Vice President for Planning.

Enrollment in M.S. and M.S.T. Programs		Opening Minds to Science				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Biochemistry & Molecular Biology, M.S.	10	10	9	11		
Biological Sciences, M.S.	43	37	45	33		
Chemistry, M.S.	34	26	33	35		
Earth & Environmental Science (with Geological sciences) M.S.	24	24	30	28		
Mathematics & Statistics, M.S.	24	31	25	23		
Microbiology & Immunology, M.S.	11	14	15	18		
Neuroscience, Cell Biology & Physiology, M.S. (+ Anatomy)	36	44	43	51		
Physics, M.S.	18	10	11	15		
Psychology (with Human Factors), M.S.	7	5	5	6		
Total M.S.T.	31	21	26	18		
Total	238	222	242	238		

Degrees Awarded, M.S./M.S.T.		Opening Minds to Science				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Biochemistry & Molecular Biology, M.S.	1	4	6	2		
Biological Sciences, M.S.	12	8	11	11		
Chemistry, M.S.	11	10	8	17		
Earth & Environmental Science, M.S.	10	6	13	7		
Mathematics & Statistics, M.S.	9	7	7	7		
Microbiology & Immunology, M.S.	4	4	2	3		
Neuroscience, Cell Biology & Physiology, M.S. (+ Anatomy)	3	12	10	10		
Physics, M.S.	6	4	2	8		
Psychology, M.S.	7	4	6	8		
Earth Science, M.S.T.	5	5	3	10		
Interdisciplinary Science & Math, M.S.T.	3	6	2	1		
Total Degrees Awarded	71	69	71	87		

Enrollment, Ph.D. Programs		Opening Minds to Science				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Biomedical Sciences	46	53	56	50		
Environmental Sciences	20	21	17	18		
Psychology (HF/IO)	47	49	48	42		
Total	113	123	121	110		

Degrees Awarded, Ph.D.		Opening Minds to Science				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Biomedical Sciences	4	3	5	8		
Environmental Sciences	–	2	4	2		
Psychology (HF/IO)	3	5	9	3		
Total	7	10	18	13		

D. Position CoSM as a Regional Research and Educational Partner of Choice

The College established stronger presence in the community and region by participating in various applied educational- and research-based economic initiatives supported by Wright-Patterson Air Force Base (WPAFB), the Air Force Research Laboratory (AFRL), industry, medicine, and the local economic development community. CoSM also partnered with other area institutions of higher education to develop regional educational planning as well as a regional research platform.

HIGHLIGHTS:

“Exploring Human Anatomy: An Interactive Anatomy Lab Experience”. This hands-on Anatomy Lab experience provides a great opportunity for students to further their understanding of human anatomy. Presentations were made by **Dan Miska** (NCBP) to over 800 high school and technical college students.

“Summer Honors Institute”. This hands-on Anatomy & Physiology Lab experience provides a great opportunity for students to further their understanding of human anatomy & physiology. Presentations were made by **Dan Miska** (NCBP) and **Nick Ritucci** (NCBP) to over 20 high school students over a 5 day period.

Horizons in Medicine – This program offers local high school students, mostly from disadvantaged or minority backgrounds, the opportunity to see first hand the science and delivery of health care that forms the foundation of a career in medicine. **Gary Nieder** (NCBP) directed the instruction of 20 HS students for the one week anatomy segment.

EMS Cadaver Anatomy Procedure Lab – Gross anatomy instruction was coupled with training in field emergency procedures to train ~150 area EMS personnel. **Dan Miska** (NCBP) was involved in organizing the anatomy lab portion.

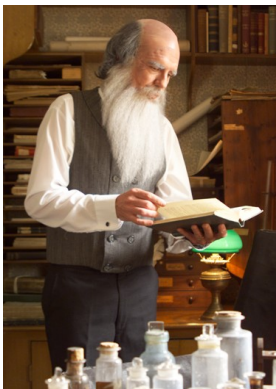
Jacqueline Neal (BIO), Director of Advising for Biology and Health Sciences, received the President's Award for Outstanding Staff in the category of Leadership. She also organized "Pathway to Health Professions", that drew approximately 200 high school students intending study in pre-health fields.

Jim Amon (BIO) hosted a workshop at Wright State on identifying, understanding, and preserving wetlands. More than 75 professionals, including biologists, developers, consultants, regional planners, and others attended. He also organized WSU participation in the annual national Birdathon.

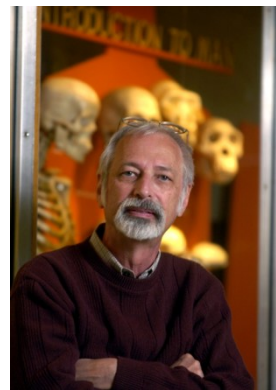
Dan Krane (BIO) organized the eighth annual national "Expert Forum on The Science of DNA Profiling" that was attended by nationally recognized scientific experts and attorneys.

Dr. Carlo Croce (The Ohio State University) presented "The role of MicroRNAs in Human Cancer" in May 2009 for the **Varandani Lecture**.

In honor of the 200th anniversary of Charles Darwin's birth, the Department of Biological Sciences hosted an **Evolution Lecture Series**.



Robert Dennison, Advanced Placement (AP) Science Lead Teacher for the Houston Independent School District, presented "*A 200th Year Birthday Visit*" on February 27, 2009. Dennison has been bringing great scientists of the past to life for his students since 1984.



Evolution biologist, **C. Owen Lovejoy** gave the talk "*Human Origins: More than just Phylogeny*" on May 15, 2009 to help honor the anniversary of Darwin's birth.

Trebuchet – The Wright State University Trebuchet Competition was first held in 1999 as a competition to see who could build a trebuchet that could throw the farthest distance and with the most accuracy. The first competition was held in Wright State's Student Union as part of the National Engineers Week festivities and the TEAMS (Tests of Engineering Aptitude, Mathematics and Science) competition. In 2001, the Trebuchet Competition format was changed to a tournament style event and moved to the McLin Gym. Student teams, consisting of six members and four trebuchets each, challenged one another to see whose trebuchets would net them the title of "Trebuchet Competition Champions." In 2004, the Trebuchet Competition outgrew the McLin Gym and was moved to the Nutter Center's Main Arena. This year, more than 250 area students entered the competition.

Take Our Daughters and Sons to Work – The College was instrumental in planning and implementing this university-wide event held in April. More than 150 youth came to work with a parent or mentor for the day. CoSM faculty led special sessions for the visitors.

CoSM Advisory Board – The College of Science and Mathematics (CoSM) Advisory Board will advise the CoSM Dean regarding the overall strategy of the college. The Board will participate in advocacy opportunities with alumni, local schools, and key stakeholders. The Board will leverage resources to support CoSM strategies and actively connect the college with the community and community leaders. The Board will serve as a sounding board to monitor progress on the strategic plan and review action plans.

During 2009, two new members joined the CoSM Advisory Board. New CoSM Advisory Board members are:

Deborah Loewer – Rear Admiral, U. S. Navy (retired)
Gloria Skurski – ThinkTV

Other CoSM Advisory Board members include:

Ken Berta – daytaOhio
Patricia Breig – Chemineer
Rosalie Catalano – Keystone HR Consulting
Matthew Diggs – The Diggs Group
Stacia Edwards - Regional Workforce Transformation Consortium
Al Herman – Barco
Robert Jackson – Greene Memorial Hospital
Jacqueline Janning – AFRL/XPTT
Kathy Kralovic – Kralovic Consulting
Jeri Giles Kubiak – National Association of Manufacturers
Lisa Novelli – National Composite Center
Gene Peters – Cargill
Gregory Reinhart – The Mathile Institute
David Smith – The Community Blood Bank
Joseph Sciabica – AFRL

E. Exercise National Leadership in the Science of Teaching and Learning

The Core Strategy is to exercise national leadership in the science of teaching and learning, responding to society's need for mathematics and science literacy and a globally competitive workforce.

HIGHLIGHTS:

Lisa Kenyon (BIO) and **Kathy Koenig** (PHY) each received the Wright State University President's Award for Early Career Achievement. Both have initiated research projects in the science of learning.

William Slattery (EES) was recognized for Distinguished Service, Geoscience Education Division, from the Geological Society of America.

Dan Miska (NCBP) received a General Education Excellence in Teaching Award, for excellence in promoting general education learning objectives and the Presidential Award for Faculty Excellence, Outstanding Instructor, Wright State University.

Nick Ritucci (NCBP) received a General Education Excellence in Teaching Award, for excellence in promoting general education learning objectives, Wright State University

Wright State University's Short-Term Training Program to Increase Diversity in Health-Related Research (**STREAMS**) is funded by the National Heart, Lung, and Blood Institute of the [National Institutes of Health](#) to encourage members of under-represented minority groups and students with disabilities to choose careers in cardiovascular-related research.

Chem Demo Program, led by Professors *Emeriti* **Rubin Battino** (CHM) and **John Fortman** (CHM), with the assistance of **Kirby Underwood** (CHM) (Freshman Lab. Manager), reaches roughly 7,500-8,000 high school, junior high, and grade school students each year with multiple presentations in December and March.

F. Improve Undergraduate Student Success

The Core Strategy is to strengthen the undergraduate student success through general education, student-centered faculty, research opportunities, the advising process, student-support programming, and the recruitment of top undergraduate students.

HIGHLIGHTS:

Lauren Ford, an undergraduate Biology major, won the Wright State University Libraries Student Academic Excellence Award

Lindsey Hogle, an undergraduate Biology major, was named Miami Valley Academy of Family Physicians Premedical Student of the Year.

Junior Physics major **Zach Gault** was accepted into two summer NSF Research Experiences for Undergraduates Programs, one at Cornell and the other at Princeton.

Khadijeh Alnajjar (BIO) received an award at the Experimental Biology (EB09) Conference in New Orleans for Outstanding Poster Presentation by an Undergraduate in Comparative Physiology.

Alyssa Tobe, an undergraduate Biology major, received the National Student Honor Award from the American Society for Clinical Pathology for academic excellence.

For the second year, Wright State University students studied mercury levels in the Atlantic Ocean off the New England coast. Under the leadership of **Chad Hammerschmidt**, Assistant Professor in the Department of Earth and Environmental Sciences (EES) **Katlin Bowman**, **Lisa Romas**, and **Melissa Tabatchnick** worked at sea for two weeks as research assistants for Dr. Hammerschmidt. The research is funded by the National Science Foundation. Students and scientists from the University of Connecticut and Woods Hole Oceanographic Institution worked alongside WSU team aboard the RV Oceanus.

Mercury Team of Scientists

Bottom Row from Left to Right:

Dr. Geraldine Nogaro, **Katlin Bowman**, **Lisa Romas**, **Melissa Tabatchnick**, Michael Finiguerra, Kathleen Munson, Susan Gichuki.

Top Row from Left to Right:

Dr. Carl Laborg, **Dr. Chad Hammerschmidt**, Tristan Kading, Allan Hutchins, Lynne Butler, Dr. William Fitzgerald, Prentiss Balcom.
Absent - Jenay Guardiani Aunkst.



Nicole Kahle, student worker for Biological Sciences Department and Pre-Health Advising Office, was WSU Outstanding Student Employee of the year.

Lynn Hartzler (BIO) led experiments in physiology with elementary school students as part of the “Phun Week” program sponsored by the American Physiological Society.

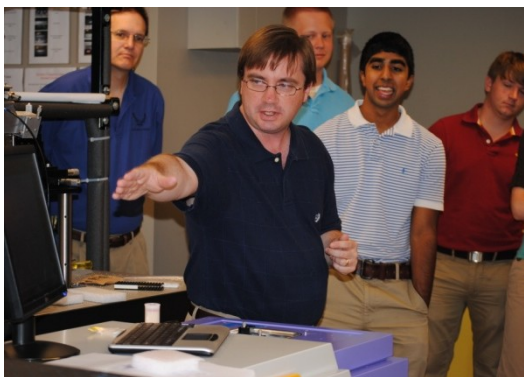
From Psychology, **Dragana Claflin, Scott Watamaniuk and Patricia Schiml-Webb**, offered several modules during Exploring STEMM Week to approximately 500 students.

STEM Talent Enhancement Program (STEP) Debuts New Course: SM101. “**Scientific Thought and Method**” Development of the new course began after institutional collaborators Wright State University (WSU) and Sinclair Community College (SCC) were awarded a \$2 million STEM Talent Enhancement Program (STEP) grant by the National Science Foundation. **Dean Wheatly** is the principal investigator (PI) on this grant with co-PIs **Dr. Nathan Klingbeil** (Mechanical and Materials Engineering) and **Dr. Kathy Koenig** (PHY).

“**Scientific Thought and Method**” is an introductory science course that allows students to explore the physical and natural sciences while developing the math-based skills they need to succeed in their majors. Developed by an interdisciplinary team of WSU and SCC faculty members, the course was modeled after WSU’s successful EGR 101 course, “Introductory Mathematics for Engineering Applications,” which allows students to get a feel for engineering earlier rather than later in their curriculum.

Exploring STEMM – (Formerly Exploring Science) Exploring STEMM is a week-long event now organized by the Wright State University Department of Pre-College Programs and conducted by departments in the College of Science and Mathematics. Middle schools and high schools from area school districts bring students to the WSU campus to participate in a multitude of hands-on science activities. More than **1,400** area students participated in the program in **2009**.

Wright Scholars Summer Tour – Wright-Patterson Air Force Base Air Force Research Laboratory (WPAFB/AFRL) sponsored the Wright Scholars Program. Participants (16-18 year old students who are high school post juniors and graduated seniors) are selected to participate based on a number of criteria such as GPA/class rank, leadership skills, and interest in the **STEMM** fields. These scholars are given the wonderful opportunity to work on research projects with WSU faculty, Air Force Research Laboratory (AFRL) scientists and engineers, industry scientists and engineers as well as other graduate and undergraduate students. The goal of this program is to help recruit the next generation of scientists and engineers into the various **STEMM**-based undergraduate programs in the Dayton area. Students will also be encouraged to consider a future **STEMM** career as part of the Air Force Research Laboratory workforce. To supplement the Scholars research collaboration experience, Wright State University faculty, graduate students, and undergraduate students highlight “*cutting-edge*” research projects through presentations and laboratory tours. The program's **Wright State University** experience is sponsored jointly by the **College of Science and Mathematics and the Boonshoft School of Medicine**.



Jason Deibel, Assistant Professor
in the Department of Physics with
Wright Scholar Students.

Greene County Science and Engineering Day – Joyce Howes, CoSM Assistant Dean for Student Affairs, welcomed more than 40 students from at least 6 Greene County Middle and High Schools for Greene County Science and Engineering Day. The event, held on March 7, 2009, is the only county-wide science fair hosted for students in Greene County school systems.

Undergraduate Enrollment By Program – Includes students who intend to major in the CoSM.		Opening Minds to Science				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Biological Sciences	641	641	701	745		
Chemistry	142	113	130	139		
Clinical Laboratory Science	40	36	44	53		
Earth and Environmental Sciences	68	71	66	86		
Integrated Science	15	10	6	10		
Mathematics	81	73	95	105		
Physics	31	22	26	35		
Psychology	644	679	738	769		
Undeclared Science & Mathematics	126	137	122	192		
Total Enrollment	1788	1782	1928	2134		

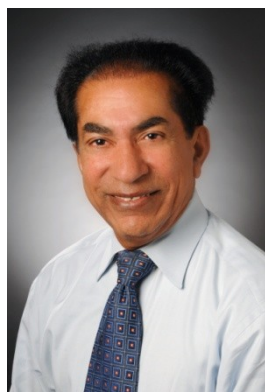
Undergraduate Degrees Awarded by Program		Opening Minds to Science				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Biological Sciences	92	105	102	96		
Chemistry	31	22	20	14		
Clinical Laboratory Science	4	6	7	2		
Earth and Environmental Sciences	15	10	6	18		
Integrated Science	1	1	1	2		
Mathematics	22	17	17	17		
Physics	5	4	5	4		
Psychology	139	170	173	158		
Total Degrees Awarded	309	335	331	311		

Undergraduate Degrees Awarded by Degree, Gender, and Ethnicity		Opening Minds to Science				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
BS	117	141	196	190		
BA	192	194	135	121		
Female	189	212	213	202		
Male	120	123	118	109		
American Indian/Alaskan Native	1	0	1	4		
Asian/Pacific Islander	14	15	16	14		
Black/Non-Hispanic	22	31	29	25		
Foreign/Non-Resident Alien	1	6	3	5		
Hispanic	4	5	5	3		
Unknown	26	24	26	18		
White	241	254	251	242		

G. Develop and Expand Alumni Relations

The Core Strategy is to develop and expand relationships with our CoSM alumni to engage them as partners in our mission. The college has awarded over 8,500 undergraduate and graduate degrees. Many of WSU's alumni remain in the region. Our goal is to become reacquainted with more of them since they can become active partners in "Opening Minds to Science" through sharing their success and affording business/research opportunities to the CoSM STEM graduates of tomorrow.

CoSM 2009 Outstanding Alumni Award



Joseph C. Mantil, M.S. '75, Chief, Division of Nuclear Medicine at Wright State University, is the 2009 College Outstanding Alumni Award winner from the College of Science and Mathematics. He is also the Director of the Department of Nuclear Medicine/PET at Kettering Medical Center in Kettering, Ohio.

Dr. Mantil's professional research has included the study of brain tumors, PET in seizure disorders, brain blood flow and oxygen utilization studies, schizophrenia, cardiovascular disease, and drug research and evaluations. He has taught science, mathematics, and medicine to undergraduate, graduate, and medical student and residents.

Dr. Mantil has published 75 publications in professional scientific journal articles, 12 publications in professional scientific conference proceedings and reports, 103 scientific papers, and 2 books, "Radioactivity in Nuclear Spectroscopy" Vol. I & II. He has served as a session chairman, speaker, and co-

organizer for several international conferences in the U.S.A., Western Europe, India, and the Far East. His many professional affiliations include membership to the Society of Nuclear Medicine, Ohio State Medical Association, and American Physical Society.

He has been listed in American Men and Women in Science and Who's Who in Midwest. His accomplishments have been recognized with an All India Institute of Medical Sciences Silver Jubilee Oration Award in 2004 and Society of Nuclear Medicine India Homi Bhabha Memorial Oration Award in 2005. In addition to earning a Masters of Science in Biological Sciences from Wright State University, he also has degrees from Poona University, University of Detroit, Indiana University, and the Universidad Autonoma de Ciudad Juarez.

Update on 2003 CoSM Outstanding Alumni Award Recipient

John Hassoun, B.S. '83, M.A. '86 is Senior Vice President of Federal Programs and is responsible for leading ATSC's federal and public sector lines of business operations, strategy, and account development. Mr. Hassoun has a distinguished record of nearly 20 years of corporate experience in business development, business operations, and program management working in all areas of the federal sector - defense, intelligence, and civilian. Hassoun holds a Master of Arts in Human Factors and a Bachelor of Science degree in Psychology from Wright State University. He has authored over 20 technical reports and research papers on topics involving advanced technology.

Each year the WSU community hosts the Annual Madrigal Dinner to celebrate the holiday season. This year 18 CoSM alumni, faculty, staff and friends were entertained by the lords and ladies, roving musicians, marionettes, singers, dancers, and a court jester while enjoying a wonderful madrigal feast.

Dean Michele Wheatly Leaves Wright State University



December 2, 2009 – Dan Voss, CoSM Associate Dean bids farewell to Dean Michele Wheatly as she leaves Wright State University to become Provost at West Virginia University.